

1. (Amended) A pair of parent plants for producing seeds comprising:

(i) a first parent plant containing one or more gene sequences encoding a polypeptide or protein A, and

(ii) a second parent plant containing one or more gene sequences encoding a polypeptide or protein B;

wherein the polypeptides and/or proteins A, B, when expressed in separate plants, do not form an active enzyme, a regulatory protein or a protein which affects the functionality and/or viability and/or the structural integrity of a cell, but when expressed in the same plant do form an active enzyme, a regulatory protein, or a protein which affects the structural integrity of a plant cell.

2. (Amended) A pair of plants as claimed in claim 1, wherein the one or more gene sequences from at least one of the plants is transgenic.

13. (Twice Amended) A pair of plants as claimed in claim 1, wherein each polypeptide or protein A, B is linked to a protein dimerization domain of a dimeric or multimeric protein that promotes association between polypeptides or proteins A and B.

15. (Amended) A method for producing a plant having a desired phenotype by virtue of an active enzyme, a regulatory protein or a protein which affects the structural integrity of a cell, the method comprising crossing a first plant with a second plant wherein the first plant contains one or more gene sequences encoding a polypeptide or protein A but which plant does not have the desired phenotype and wherein the second plant contains one

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or more gene sequences encoding a polypeptide or protein B but which plant does not have the desired phenotype, wherein the polypeptides A and B when expressed in separate plants, do not form an active enzyme, a regulatory protein or a protein which affects the functionality and/or viability and/or the structural integrity of a cell, but when expressed in the same plant do form an active enzyme, a regulatory protein or a protein which affects the structural integrity of a cell.

16. (Amended) A The method of claim 15, wherein the one or more gene sequences from at least one of the first and the second plant is a transgene.

23. (Twice Amended) A method as claimed in claim 15, wherein each of the first and second plants is homozygous with respect to the gene sequence encoding polypeptide or protein A, B, respectively.

28. (Twice Amended) A method as claimed in claim 15, wherein at least one of the plants contains, as the one or more gene sequences, heterologous gene sequences.

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29. (Twice Amended) A seed obtained by crossing the pair of plants of claim 1, or a plant obtained from the seed.

30. (Amended) A seed or plant, having a phenotype of an active enzyme, a regulatory protein or a protein which affects the structural integrity of a cell, which is caused by the combined action of two or more transgenes, comprising a first transgene encoding a polypeptide or protein A and a second transgene encoding a polypeptide or protein B wherein the polypeptides A and B, when expressed in separate plants, do not form an active enzyme, a regulatory protein or a protein which affects the functionality and/or viability and/or the structural integrity

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of a cell, but when expressed in the same plant do form an active enzyme, a regulatory protein or a protein which affects the structural integrity of a cell.

Please add new claim 31 as follows:

31 (New) A seed or progeny plant obtained from the plant of claim 29.